

REMARKS

The comprehensive Office Action of May 9, 2008 has been carefully studied. By virtue of the present amendment, claim 1 is significantly amended, claims 2-4 are cancelled along with claims 13 and 14, and claims 15-24 are added. In addition, it is seen that the specification is amended on page 5 by inserting the subtitle "Brief Description Of Drawing" and correcting the specification so that it is consistent with the drawing.

The following paragraphs correspond to the order of the paragraphs of the Office Action:

Drawings

In view of the cancellation of claims 13 and 14, the requirement for a drawing directed thereto is no longer pertinent.

Arrangement Of Specification

The subtitles listed in the Office Action have not been mandatory heretofore except for the inclusion of "Brief Description Of The Drawing". Consequently, this subtitle is now incorporated in the specification, as indicated above.

Also, it is seen that the objection to the disclosure set forth in numbered paragraph 2 of the Office Action is remedied.

Claim Objections and Rejections Under 35 U.S.C. 112

In view of the cancellation of claims 3, 4, 13 and 14, the objections to such claims as well as the rejection of claims 13 and 14 under 35 U.S.C. 112 are no longer pertinent.

Claim Rejections - 35 U.S.C. 102

Applicants' original claims stand rejected under 35 U.S.C. 102 over U.S. 4,600,377 (Musil). This reference is no longer pertinent to a rejection under 35 U.S.C. 102 or 103 in view of the following marked distinctions as set forth in amended claim 1:

1. Musil is directed to a "liquid fuel burner" whereas Applicants' burner is a combustible gas burner, with coaxial channels, one for the combustible gas and another one for oxygen-gas containing gas, the channel for oxygen containing gas having a cross sectional area of 0.8 to 1.8 times the cross sectional area of the channel for the combustible gas. Support for this ratio of cross sectional areas is drawn from the discussion on page 4, first complete paragraph, especially the sentence "the cross sections of the gas supply tubes are established based on the recommended gas velocities."

2. The burner head at least in the area of the coaxial exit ends consists essentially of steel optionally alloyed with aluminum as a base, said base being coated with aluminum.

Support for this amendment is found in the specification on page 2, fourth complete paragraph.

In contrast to the above distinctions, Musil is directed to a liquid fuel burner head made of machined aluminum wherein the liquid exit is radial to the axis of the exit air channel.

(Column 3, lines 21-24 and column 2, lines 48-52.)

Inasmuch as the primary reference Musil is different in kind than Applicants' combustible gas burner, it is apparent that Musil is no longer pertinent as a reference. Accordingly, all rejections predicated on Musil as a primary reference should be withdrawn.

Nevertheless, Applicants wish to note that the cited reference U.S. 2002/0079023 (Alstrup et al.) does not suggest the use of a coating of aluminum for steel. To the contrary, Alstrup et al. proposes the deposition of a noble or precious metal of an element from group IVa, for IVb and Va onto an alloy of iron, nickel and chromium and/or aluminum. Since aluminum is from group IIIa, the reference, if anything teaches away from Applicants invention.

Newly Added Claims

Claims 15 and 16 are directed to the preferred ratios of cross-sectional areas drawn from page 2 of the specification.

Claims 17 and 18 are directed to the drawing which shows the outer channel having an exit end inclined toward the inner channel.

Claims 19-21 are supported by claim 9 but are dependent on claims 5, 6 and 7 respectively.

Claim 22 is supported by claim 10 but is dependent on claim 21, thereby being a highly comprehensive claim directed to unique features of Applicants' invention.

Claims 23 and 24 are discussed above.

In view of this amendment, favorable reconsideration is courteously requested. If there are any remaining issues which can be expeditiously resolved by a telephone conference, the Examiner is courteously invited to telephone Counsel at the number indicated below. If Counsel is unavailable, the Examiner is invited to telephone Ms. Richardson at 703-812-5326 and she will be pleased to enlist the services of another attorney.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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